

Work Order ID 162560

Monday, June 05, 2017 9:32:07 AM

162560

Page 1

Item ID: D412-709-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Escape Panel Modification Clear Fits LH or RH

Stop ***NS2***Start Date: 6/8/2017 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 6/15/2017 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **JUN 07 2017** Tooling: _____ Date: _____Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr	
IIN-D412-709	Rev C	DAS 6 9-89

JUN 21 2017

100	Document Control	0.00
100	DOCUMENT CONTROL	
DC	Memo	0.00
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPPD412-709-011 CHG001	

DAS 27 9-89**JUL 03 2017**

110	Pick Kit	0.00
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110		
Packaging	Memo	0.00

Packaging

DAS 26 9-89 **DAS 28 9-89****JUN 22 2017**

120	QC4- 100% Inspect kits for completeness	0.00
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120		
QC	Memo	0.03

Quality Control

DAS 27 9-89**JUL 03 2017**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
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										QC / QA Coordinator Approval															
Root Cause		FAULT CATEGORY																							
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OTHER : ☐																									

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: _____	0.00							
130	Packaging					DAS 27 9-89			
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-709-011 Location: <i>fs 016</i>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.10							
Quality Control									

JUL 03 2017

*17/7/4*DAS
21
9-89

JUL 03 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
							OTHER : ☐		

Picklist Print

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Page 1

Work Order ID: 162560

162560

Parent Item: D412-709-011

D412-709-011

Parent Item Name: Escape Panel Modification Clear Fits LH or RH

Start Date: 6/8/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B Removed Manufacturing 05-11-06 JLM
IPP rev C removed sub-components 07.11.12 EC IPP Rev:D
10.05.20 added D3561-1 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN6-20A *AN6-20A* BOLT		Purchased	No			110	Each	10.0000	3	3			
									**				
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST334		10							
				M134943		7							
				M136148		3							
D3118-3 *D3118-3* Sign Assembly		Manufactured	No			110	Each	4.0000	1	1			
									**				
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST017		4							
				147218		4							
D3224-1 *D3224-1* Frame		Manufactured	No			110	Each	4.0000	1	1			
									**				
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST425		4							
				155529		2							
				158842		2							

DAS 26 28
9-89 9-8

JUN 22 2017

DAS 26 28
9-89 9-8

JUN 22 2017

DAS 26 28
9-89 9-8

JUN 22 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

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Parent Item: D412-709-011

D412-709-011

Parent Item Name: Escape Panel Modification Clear Fits LH or RH

Start Date: 6/8/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

D3239-1 Manufactured No

110 Each 9.0000 2 2

D3239-1

Cover

**

DAS
28
9-89

DAS
26
9-89

JUN 22 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST027

9

147304

5

159916

4

2x

D412-709-013 Manufactured No

110 Each 2.0000 1 1

D412-709-013

Escape Panel Push-Out Window Clear Fits LH or RH

**

DAS
28
9-89

DAS
26
9-89

JUN 22 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

FG016

2

150130

2

1

MS21042L3 Purchased No

110 Each 2,025.000 2 2

MS21042L3

Nut

**

DAS
28
9-89

DAS
26
9-89

JUN 22 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

79

m135945

79

GA

434

m134360

102

M136665

332

OVER007

1000

m134360

0

m137680

1000

2x

ST303

512

m137321

4

m137495

508

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
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Parent Item: D412-709-011

D412-709-011

Parent Item Name: Escape Panel Modification Clear Fits LH or RH

Start Date: 6/8/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L6 Purchased No

110

Each

246.0000

3

3

MS21042L6

Nut

**

DAS
28
9-89

DAS
26
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

OVER007

150

m137361

100

m137587

50

ST303

96

137459

50

m137075

46

3x

JUN 22 2017

MS35207-262

Purchased

No

110

Each

31.0000

2

2

MS35207-262

Screw

**

DAS
28
9-89

DAS
26
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST271

31

m137371

31

2x

JUN 22 2017

NAS1149D0332J

Purchased

No

110

Each

791.0000

2

2

NAS1149D0332J

Washer

**

2x m137736

DAS
28
9-89

DAS
26
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP

225

m136015

8

m137075

217

GA

308

m136643

308

ST264

258

m136015

0

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JUN 22 2017

Monday, June 05, 2017 9:32:05 AM

Shop Packet Print

Page 3

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																													
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Picklist Print

Monday, June 05, 2017 9:32:05 AM

Page 4

Work Order ID: 162560

162560

Parent Item: D412-709-011

D412-709-011

Parent Item Name: Escape Panel Modification Clear Fits LH or RH

Start Date: 6/8/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0616J

Purchased

No

110

Each

77.0000

5

5

NAS1149D0616.J

WASHER

**DAS
27
9-89**

Location

Loc Qty

Loc Code

ST264

77

122815

77

NAS1149D0663J

Purchased

No

110

Each

856.0000

5

5

NAS1149D0663.J

Washer

**DAS
27
9-89**

Location

Loc Qty

Loc Code

ST260a

600

M137361

600

ST263

256

M136787

256

**

**DAS
28
9-89**

**DAS
26
9-89**

JUN 22 2017

5x

**

**DAS
28
9-89**

**DAS
26
9-89**

JUN 22 2017

5x.

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
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OTHER : ☐					

5.0 PARTS LIST

Qty -011	Qty -013	Qty -015	Qty -017	Qty -019	Qty -021	Qty -023	Part Number	Description
X							D412-709-011	ESCAPE PANEL MODIFICATION KIT
1	X						D412-709-013	ESCAPE PANEL PUSH OUT WINDOW KIT
		X					D412-709-015	HINGE PANEL DOOR MODIFICATION KIT
		1	X				D412-709-017	HINGE PANEL DOOR REPLACEMENT WINDOW KIT
				X			D412-709-019	CARGO DOOR PUSH OUT WINDOW KIT
					X		D412-709-021	HINGE PANEL DOOR PUSH OUT WINDOW MODIFICATION KIT
					1	X	D412-709-023	HINGE PANEL DOOR REPLACEMENT PUSH OUT WINDOW KIT
			1				D2126-0720	LOCKING SEAL
1							D3118-3	SIGN ASSEMBLY
				1			D3136-041	WINDOW ASSEMBLY
	1						D3136-043	WINDOW ASSEMBLY
1							D3224-1	FRAME
			1				D3236-1	WINDOW
						1	D3237-1-0720	SEAL RETAINER
	1			1			D3237-1-0980	SEAL RETAINER
						1	D3237-3-0720	SEAL FILLER
	1			1			D3237-3-0980	SEAL FILLER
2							D3239-1	COVER
		1					D3240-1	FRAME
						1	D3543-1	HINGE PANEL DOOR PUSH OUT WINDOW
					1		D3543-3	HINGE PANEL DOOR PUSH OUT WINDOW FRAME
	1			1		1	D3561-1	WINDOW SEAL TOOL
3							AN6-20A	BOLT
2							AN960JD10L	WASHER
5							AN960JD616	WASHER
5							AN960JD616L	WASHER
2							MS21042L3	NUT
3							MS21042L6	NUT
2							MS35207-262	SCREW

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Revision: C

Date: 06.11.27

Work Order ID 162560***162560***

Page 1

Monday, June 05, 2017 9:32:07 AM

Item ID: D412-709-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Escape Panel Modification Clear Fits LH or RH

Start Date: 6/8/2017 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 6/15/2017 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: **JUN 07 2017** Tooling: _____ Date: _____Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr	JUN 7 1 2017							
IIN-D412-709	Rev C								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPPD412-709-011 CHG001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.03							
Quality Control									

DAS
5
9-89

JUN 22 2017



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: SH04-31

Issue No.: 1

Approval Date: June 07, 2004

Issue Date: June 07, 2004

Responsible Office:

Ontario

Aircraft/Engine Type or Model:

BELL 205A, 205A-1, 205B, 212, 214B, 214B-1, 412, 412 CF,
412 EP

Canadian Type Certificate or Equivalent:

H1SW, H-104, H-86, H-80

Description of Type Design Change:

Replacement Window Kits

**Installation/Operating Data,
Required Equipment and Limitations:**

Installation of Replacement Window Kits must be in accordance with Dart Aerospace Ltd., Installation Instructions IIN-D412-709, Rev A, dated 03.12.05, or later approved revisions.

Maintenance of the Replacement Window Kits must be in accordance with Dart Aerospace Ltd., Instructions for Continued Airworthiness ICA-D412-709, Rev A, TCCA accepted 07 June 2004, or later TCCA accepted revisions.

— End —



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

K.R. Bruce
For Minister of Transport